REMARKS

Claims 1 through 21 are pending in this Application, of which claims 5 through 11 and 13 through 17 stand withdrawn from consideration pursuant to the provisions of 37 C.F.R. § 1.142(b). Accordingly, claims 1 through 4, 12 and 18 through 21 are active.

The specification has been amended to address a manifest typographical oversight, and claim 12 has been amended to address a grammatical issue. Care has been exercised to avoid the introduction of new matter. Applicants submit that the present Amendment does not generate any new matter issue.

Claims 1 through 4, 12 and 18 through 20 were rejected under 35 U.S.C. § 102 for lack of novelty as evidenced by Sugahara et al.

In the statement of the rejection the Examiner referred primarily to Fig. 7 and related portions of the patent text, asserting the disclosure of a method that comprises forming a silicon layer 14 in contact with a first film 16 and crystallizing the silicon layer by melting and heating with a continuous-wave laser beam. This rejection is traversed.

The factual determination of lack of novelty under 35 U.S.C. § 102 requires the identical disclosure in a single reference of each element of a claimed invention, such that the identically claimed invention is placed into the recognized possession of one having ordinary skill in the art. *Dayco Prods., Inc. v. Total Containment, Inc., 329 F.3d 1358, 66 USPQ2d 1801 (Fed. Cir. 2003)*; *Crown Operations International Ltd. v. Solutia Inc., 289 F.3d 1367, 62 USPQ2d 1917 (Fed. Cir. 2002)*. In imposing a rejection under 35 U.S.C. § 102 the Examiner is required to specifically identify where an applied reference is perceived to identically disclose each and

every feature of a claimed invention. *In re Rijckaert, 9 F.3d 1531, 28 USPQ2d 1955 (Fed. Cir. 1993)*; *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 USPQ 481 (Fed. Cir. 1984)*. That burden has not been discharged. Indeed, there is a significant difference between the claimed method and the method disclosed by Sugahara et al. that scotches the factual determination that Sugahara et al. disclose a method identically corresponding to that claimed.

Specifically, independent claim 1 is directed to a method of fabricating a semiconductor device, which method comprises a sequence of manipulative steps. One of the claimed manipulative steps comprises forming a silicon layer in contact with a first film having a **contact angle of not more than 45° with respect to molten silicon**. It is **not** apparent and the Examiner did **not** specifically identify where Sugahara et al. disclose that the asserted first film 16 has a contact angle of not more than 45° with respect to molten silicon. *In re Rijckaert, supra*; *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co., supra.*

Based upon the third enumerated paragraph appearing at page 3 of the June 28, 2005 Office Action, it would appear that the Examiner assumes element 16 is made of SiN_x and, therefore, exhibits a contact angle of not more than 45° with respect to molten silicon. But no where do Sugahara et al. say that layer 16 comprises SiN_x let alone that it is formulated to have a contact angle of 45° with respect to molten silicon. This is pure speculation. But rejections under 35 U.S.C. § 102 cannot be based upon speculation. To whatever extent the Examiner may be relying upon inherency, the Examiner should be aware that inherency requires **certainty** not speculation. *In re Rijckaert, supra*; *Continental Can Co. USA, Inc. v. Monsanto Co., 948 F.2d 1264, 20 USPQ2d 1746 (Fed. Cir. 1991)*; *W. L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983).*

Applicants would stress that layer 16 employed by Sugahara et al. is characterized as a **anti-reflection film of silicon nitride**. There is **no** mention of manipulating the formulation of that silicon nitride film to achieve any objective other than functioning as an anti-reflection film. The Examiner did not provide any factual basis upon which to predicate the determination that the formulation of an anti-reflection film of silicon nitride would inherently, i.e., **necessarily**, yield a silicon nitride film having a contact angle of not more than 45° with respect to molten silicon.

Adverting to Table 1 appearing at page 21 of the written description of the specification, it should be apparent that silicon nitride, which has a recognized formula of Si_3N_4, has a contact angle in **excess** of 45°with respect to molten silicon, i.e., it is about 50°. There is **no** factual basis upon which to predicate the determination that the silicon nitride referred to by Sugahara et al. is anything other than Si_3N_4. To do so would be to engage in improper **speculation** which undermines inherency and anticipation. *In re Rijckaert, supra*; *Continental Can Co. USA, Inc. v. Monsanto Co., supra*; *W. L. Gore & Associates, Inc. v. Garlock, Inc., supra.*

The Examiner's attention is invited to the paragraph bridging pages 21 and 22 of the written description of the specification, wherein it is disclosed that experimentation was conducted in order to formulate an appropriate SiN_x film with a **reduced contact angle of not more than 45° with respect to molten silicon**. Under such circumstances, it cannot be said with the requisite certainty that Sugahara et al. disclose a silicon nitride film 16 having a contact angle of not more than 45° with respect to molten silicon.

The above argued significant difference between the claimed method and the methodology of Sugahara et al. undermines the factual determination that Sugahara et al. disclose a method identically corresponding to that claimed. *Minnesota Mining &*

Manufacturing Co. v. Johnson & Johnson Orthopaedics Inc., 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992); *Kloster Speedsteel AB v. Crucible Inc., 793 F.2d 1565, 230 USPQ 81 (Fed. Cir. 1986)*. Applicants, therefore, submit that the imposed rejection of claims 1 through 4, 12 and 18 through 20 under 35 U.S.C. § 102 for lack of novelty as evidenced by Sugahara et al. is not factually viable and, hence, solicit withdrawal thereof.

Claim 21 was rejected under 35 U.S.C. § 103 for obviousness predicated upon Sugahara et al.

This rejection is traversed. Claim 21 depends from independent claim 1. Applicants incorporate herein the arguments previously advanced in traversing the imposed rejection of claim 1 under 35 U.S.C. § 102 for lack of novelty as evidenced by Sugahara et al.

Applicants would stress that Sugahara et al. relate to forming an anti-reflection coating 16. Accordingly, whatever optimization occurs is for anti-reflection purposes. The Examiner points to nothing, and indeed Applicants find nothing, in Sugahara et al. which suggests formulating a silicon nitride film 16 such that it has a contact angle of less than 45° with respect to molten silicon. In short, Sugahara et al. neither disclose nor suggest that the contact angle with respect to molten silicon is an art-recognized result effective variable which begs optimization. Under such circumstances it is completely inappropriate for the Examiner to conclude that one having ordinary skill in the art would somehow have formulated an anti-reflection film 16 having a contact angle of less than 45 degrees with respect to molten silicon. *In re Rijckaert, supra*; *In re Yates, 663 F.2d 1054, 211 USPQ 1149 (CCPA 1981)*; *In re Antonie, 559 F.2d 618, 195 USPQ 6 (CCPA 1977)*.

Applicants, therefore, submit that the imposed rejection of claim 21 under 35 U.S.C. § 103 for obviousness predicated upon Sugahara et al. is not factually or legally viable and, hence, solicit withdrawal thereof.

Based upon the foregoing it should be apparent that the imposed rejections have been overcome and that all active claims are in condition for immediate allowance. Favorable consideration is, therefore, solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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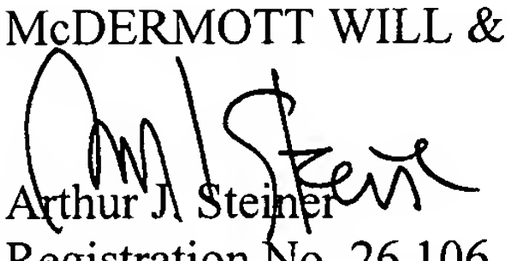

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